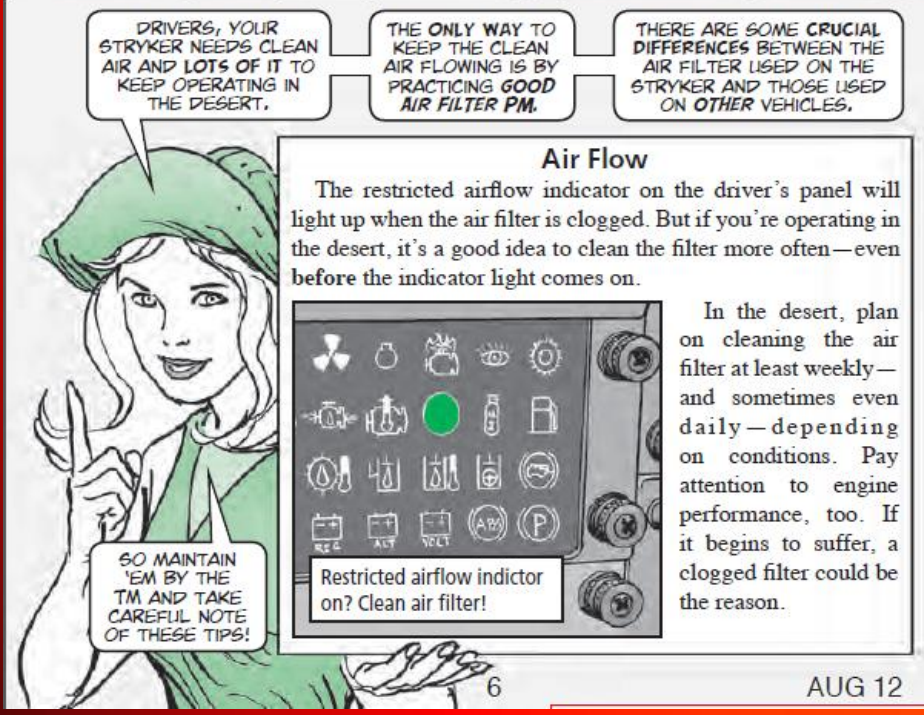


Air Flow

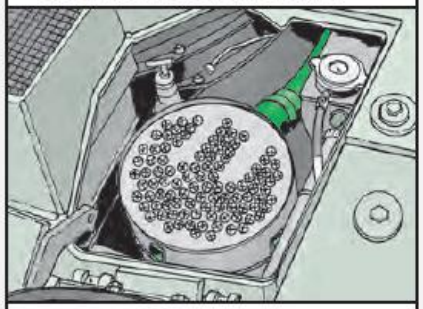
The restricted airflow indicator on the driver's panel will light up when the air filter is clogged. But if you're operating in the desert, it's a good idea to clean the filter more often—even **before** the indicator light comes on.

In the desert, plan on cleaning the air filter at least weekly—and sometimes even daily—depending on conditions. Pay attention to engine performance, too. If it begins to suffer, a clogged filter could be the reason.

Removal

Before you can clean a clogged filter element, you'll have to remove it. Here's how:

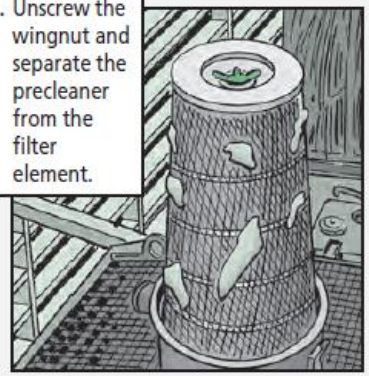
1. Disconnect the scavenger hose from the connector on the precleaner.



2. Release the three latches that hold the precleaner to the air cleaner housing.

3. Remove the filter assembly from the housing and turn it upside down.

4. Unscrew the wingnut and separate the precleaner from the filter element.



5. Inspect the gasket, NSN 5331-01-461-1526, and filter element, NSN 2940-01-460-4902. If they're damaged, replace them.

Cleaning

Turn the precleaner upside down and shake it to remove dirt and sand. Then wipe it off with a clean, damp cloth and set it aside.

Clean the filter element by blowing out dirt and sand with low-pressure air—no more than 30 psi.

Make sure you use air from another vehicle, not your own. Running your Stryker to build up air pressure will allow unfiltered air into the engine.

On most Army vehicles you blow air from the inside of the filter elements out to get rid of dirt and sand. **However**, the Stryker air filter element is the exact opposite.

Direct a jet of low-pressure air from the **outside in**. That loosens sand and dirt and allows it to fall out through the center channel.

If you don't have compressed air available in the field, shake and tap the element gently with your hand to loosen as much dirt and sand as possible. Don't hit it against anything harder—like the ground or the side of your vehicle—or you'll damage the element.

Give the filter a more thorough air cleaning as soon as you can.

PS MORE

Cleaning, Part 2

Sometimes you can't get the filter element clean just by using compressed air.

In cases of stubborn dirt, soak the element in a solution of general purpose detergent, NSN 7930-00-985-6911, and warm water. Gently move the element in the solution to help loosen and remove dirt.

After cleaning for 15 minutes, remove the element from the solution and rinse it thoroughly with clean water from a low-pressure hose.

Let the element completely air dry before reusing it. You can also use low-pressure air to help dry the element faster.

Make sure you write down in the vehicle log book each time the filter is cleaned using the detergent solution. Once it has been cleaned with detergent six times, let your mechanic know. It may need to be replaced.

Air Filter Housing

Once you've finished cleaning the element and plate, don't forget about the housing.

If the element was badly clogged, there may be some of that dirt and sand in the bottom of the housing that needs to be cleaned out. Some loose sand and dirt may fall out of the element as you're removing it.

Either way, if you don't get rid of it, that sand and dirt will immediately end up in the engine as soon as the vehicle is started.

If one is available, a small vacuum works best to clean out the housing.

Watch Out for Water

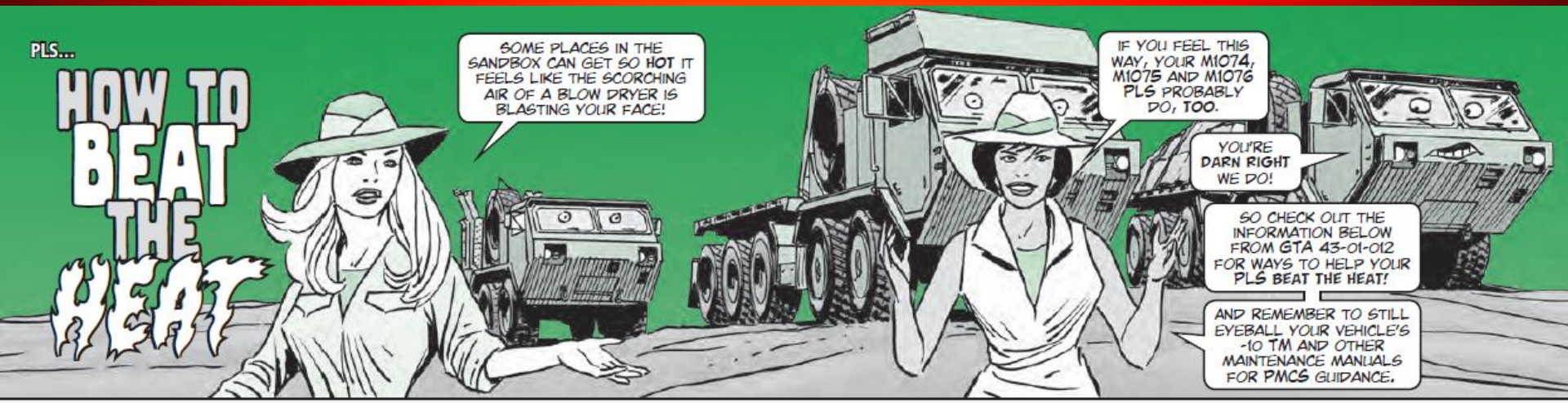
Ever notice water at the bottom of the air filter housing once the element is removed? That means you're probably not using the environmental cover when the vehicle is parked.

Without the cover, rain and wash water enter the air inlet and pool at the bottom of the housing. The water combines with dirt and sand and eventually dries to a hard, concrete-like consistency.

The only way to get it out is to chip it loose. That can cause a lot of damage to the housing. So use the environmental cover whenever your Stryker isn't in use.

PLS...

HOW TO BEAT THE HEAT



PMCS Tips

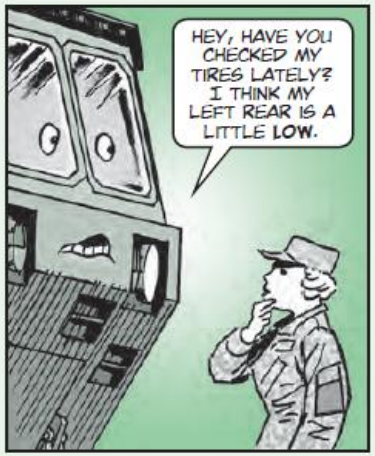
1. Inspect add-on armor (AOA) for missing or loose bolts weekly.
2. Check cab mount bushings for over-compression.
3. Inspect the escape hatch position, latches and latch hardware to ensure they're properly placed and not worn out.
4. Check the air conditioner. If it isn't blowing cold air, have maintenance check it for leaks before your mission.
5. AOA requires frequent checks. Conduct vehicle checks at each stop during missions.
6. Idle the engine before shut down to allow time for cool down.
7. Drain the fuel/water separator daily.

Armor Concerns

1. AOA affects vehicle handling, so make sure you factor in greater stopping distances due to the extra weight of the PLS. The added weight will affect engine exhaust brake operation. Reduce speed before turning.
2. Do not park on slopes if possible. If the door flies open, the extreme weight of it can cause injury to personnel or damage to equipment.
3. AOA causes excess wear on the PLS' engine, drive line, brakes, suspension and steering components. Make sure they're serviced.
4. AOA reduces visibility, so stay alert and be sure your assistant driver is also alert.

Operating in Extreme Temperatures

1. Check fluids daily, including the batteries (if you don't use maintenance-free batteries in your PLS).
2. Check tire pressure daily.
3. Check batteries for cracks.
4. Replace worn engine belts.
5. Clean air filters and radiator fins daily.
6. Keep air conditioner fins free from dirt and sand.
7. Wipe dirt away from the fuel tank's lid before opening it.
8. Keep the outside of the vehicle free from dirt and sand. If they cake up on your PLS, your vehicle can overheat.
9. Watch all gauges and indicator lights for proper readings.
10. Cover windows when not in use. That keeps the inside of the vehicle cooler.



Recommended Fluids and Lubricants

When temperatures reach 100°F:

1. Use OE/HDO 40 in the engine.
2. Use 15W/40 in the transmission.
3. Use a mixture of 50% water and 50% antifreeze in the radiator.
4. Lubricate the PLS and PLS trailer often, wiping off fittings first.

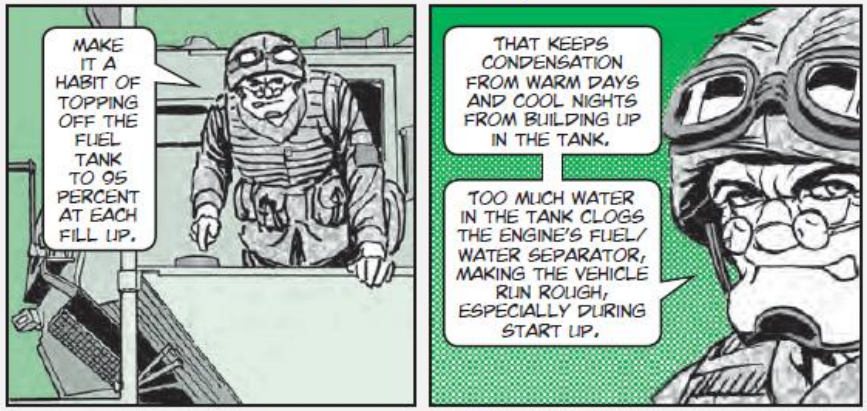
RCV Buffalo A2 ...

Making PM Work

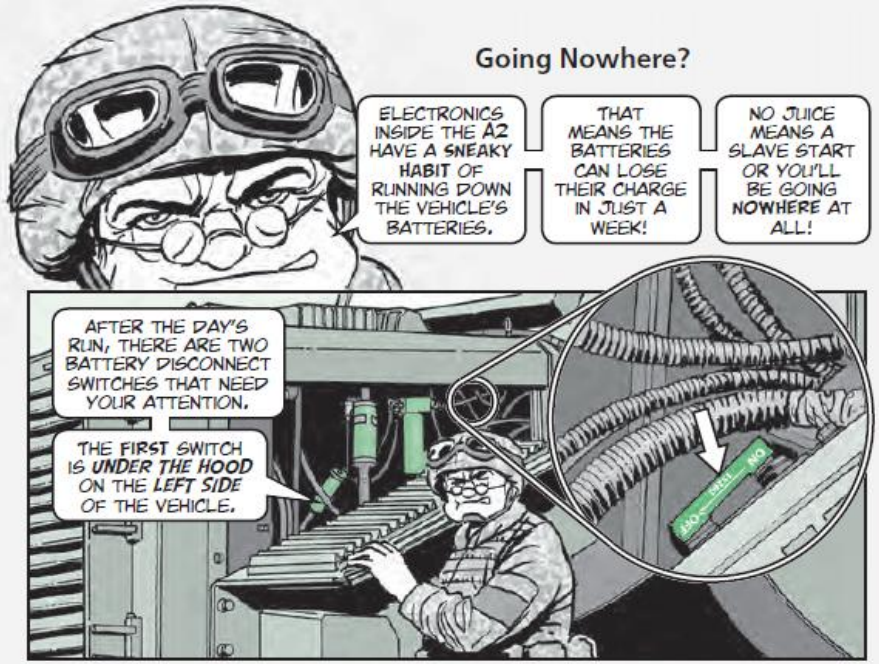
The new Buffalo A2 is a route clearance vehicle (RCV) equipped with infrared technology and ballistic-blast protection. It has a 30-ft robotic arm and claw that's operated from within the armored hull via a mounted-camera and sensory equipment. The claw probes debris and dirt to detect and safely expose mines and IEDs.

So crewmen, keep these PM pointers in mind. They'll keep your A2 mission-ready as the vehicle racks up more miles on the rough road ahead.

Fuel Tank Fill Up

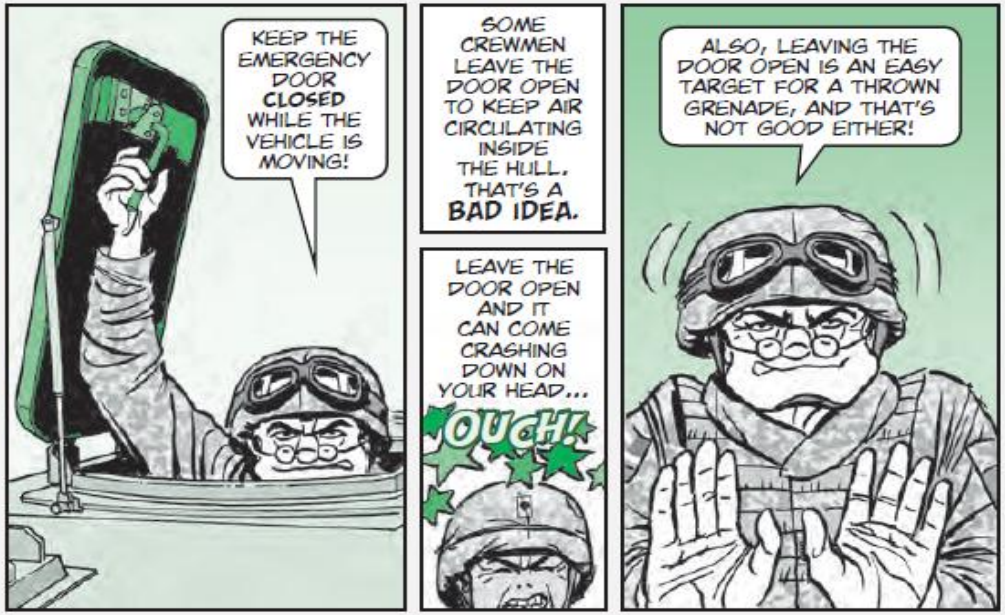


Going Nowhere?

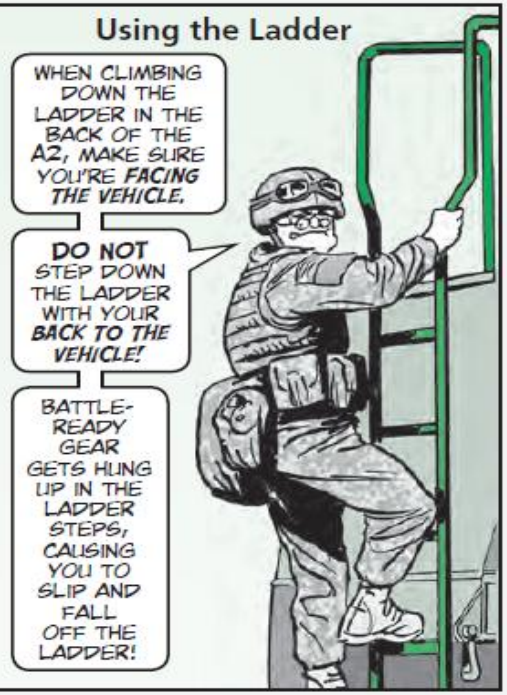


PS MORE

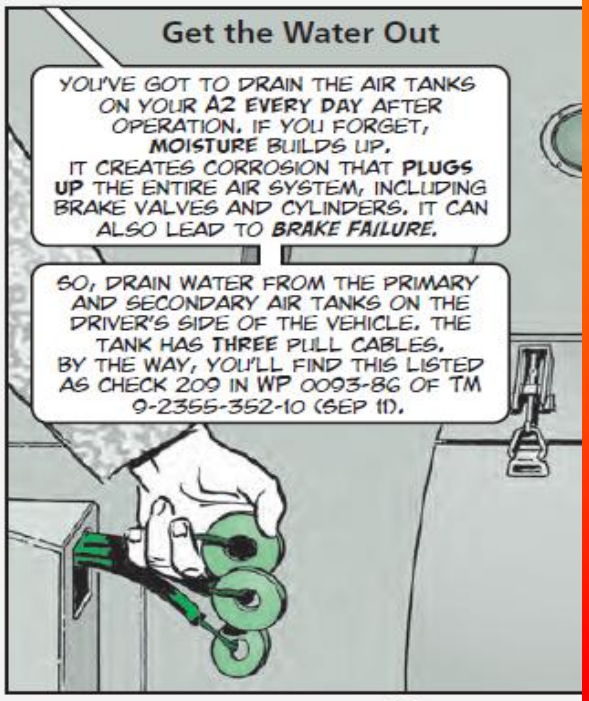
Emergency Door Reminder



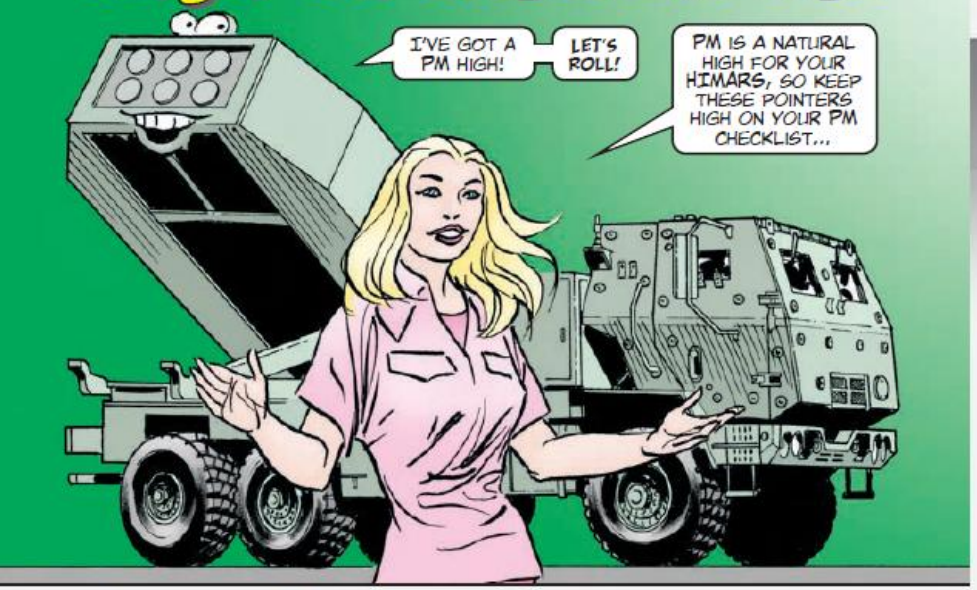
Using the Ladder



Get the Water Out



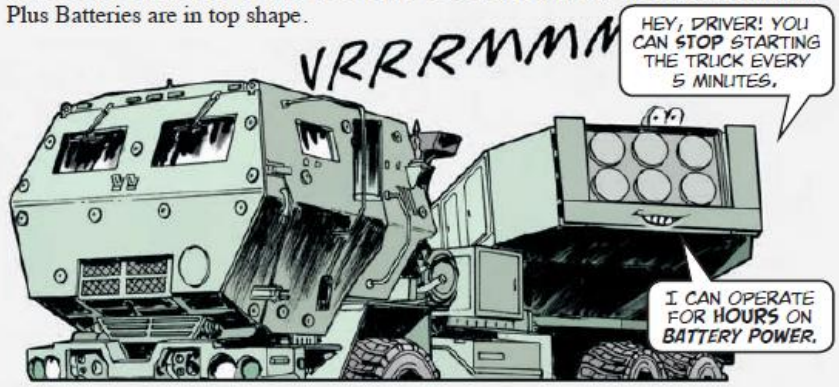
High on HIMARS PM



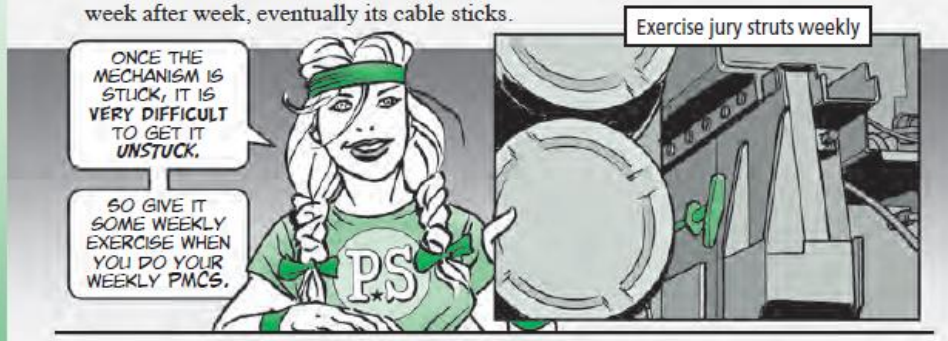
Don't start up truck every few minutes—If the batteries are in good shape, your HIMARS can operate on battery power alone for several hours.

Starting up the truck frequently will actually reduce battery life because it takes so much power to start the engine. If you have doubts about the strength of the batteries, check the battery gauge on the dash.

Always do battery maintenance like it says in the HIMARS PMCS, your unit SOP and in TM 9-6140-200-13 and TB 9-6140-252-13 to ensure your Hawker Armasafe Plus Batteries are in top shape.

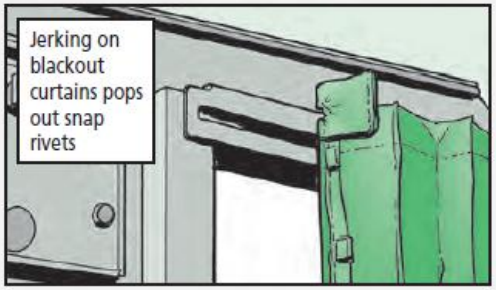


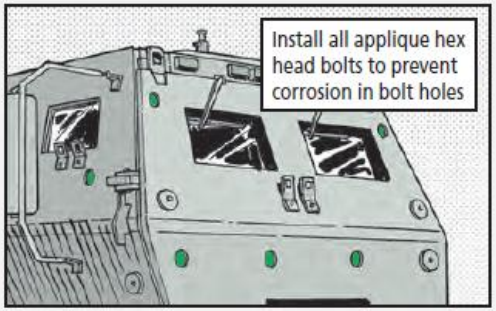
Exercise jury strut release mechanism—If you exercise the mechanism weekly, you will save your repairman so much trouble. If the mechanism is left untouched week after week, eventually its cable sticks.



ICP pointers—With improved crew protection (ICP), there are a few things to keep in mind:

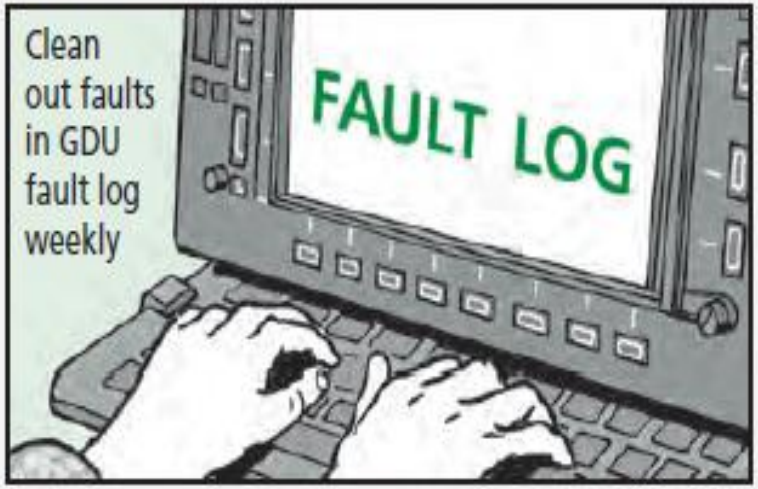
- Don't jerk on the blackout curtains. That can tear out the snap rivets that hold them in place. Slide the blackout curtains to the side while holding them near the top of the curtain to avoid pulling out their snap rivets.
- Don't leave out the hex head bolts for the applique. All the bolts need to be installed to prevent corrosion in the bolt holes. When you remove the applique and bolts, install paint plugs, NSN 5340-01-567-6558, in place of the bolts. Remember the applique mounting bolts have special threads, so their bolt holes should only be cleaned with the spiralock tap that's part of your BII.



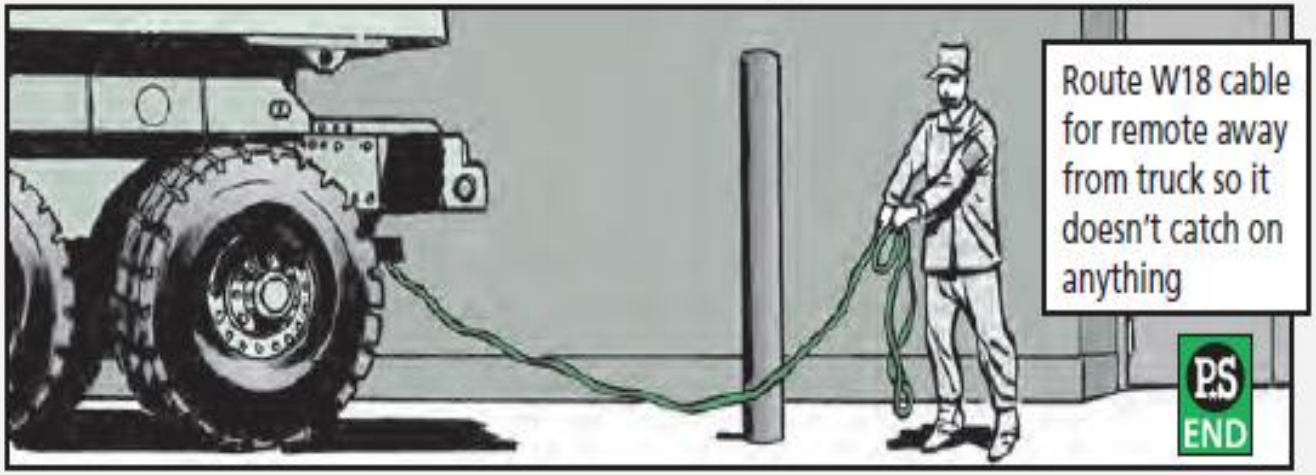


PS MORE

Clean out GDU fault log—Weekly, go into the gunner's display unit (GDU) and clean out any faults in the maintenance manager fault log. Too many faults in the log can throw faults into the HIMARS system and then you've got needless troubleshooting.



Route W18 cable carefully—When you're operating the launcher module (LM) remotely, make sure to route the W18 cable away from the vehicle. Otherwise, when the LM is moved the cable can catch on something like the tire and be ripped out.



S-842/G and S-842A/G Shelters...

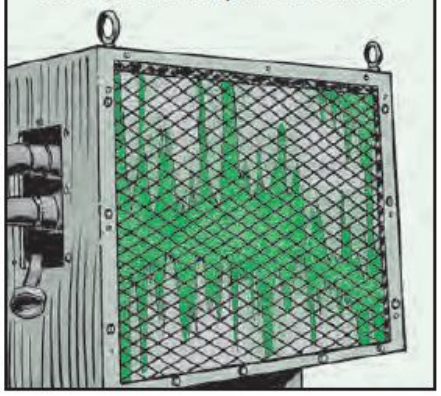
Fabric Cover Protects ECU

Before you wash, drive or transport your S-842/G shelter or S-842A/G arctic shelter, take this simple precaution: Roll the fabric cover down over the environmental control unit (ECU), then secure the cover with fasteners.

The cover helps protect the ECU's condenser coils when the ECU is shut down. If you leave the cover rolled up and the condenser exposed, water can corrode the coils.

Once the coils are corroded, the condenser can't let heat escape. Now the ECU won't work, and your shelter has no heat, air conditioning or ventilation. In hot weather, rising temperatures inside the shelter can damage electronic components. What's more, you're facing expensive repairs or maybe even replacement of the condenser at a cost of $14,000.

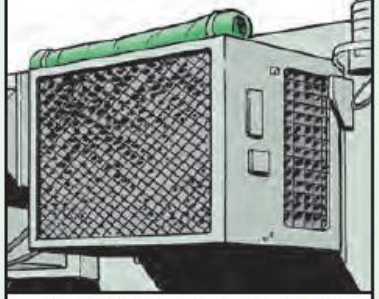
Water corrodes an unprotected condenser



Cover Up, Cover Down

Here are the rules for using the ECU's fabric cover:

Roll the cover UP when...



- The ECU is running in the COOL mode. With the cover up, air can flow across the condenser coils to remove heat from the refrigerant.
- The shelter needs ventilation, and the ECU is drawing fresh (outside) air into the shelter in any mode.

Roll the cover DOWN when...

- Washing, driving or transporting the vehicle.
- The condenser is not in use. (The condenser is used only when the ECU is in COOL mode.)
- The ECU is running in the HEAT mode without fresh air.
- The ECU is in a shutdown period.
- The ECU and the shelter are in storage.

Inspect and Repair

Look over the fabric cover for holes, tears, mildew, fraying or worn edges. Test the snaps to make sure they close properly. If you find anything you can't repair yourself, refer it to field maintenance.

RF-ITV Global Help Desk

Call the Radio Frequency In-Transit Visibility (RF-ITV) Global Help Desk at DSN 94 plus (800) 877-7925, (800) 877-7925, or email:

help.rfitv@us.army.mil

You can also get help on AKO by sending an instant message to the user name:

help.rfitv

EOD Publication Released

Army Tactics, Techniques, and Procedures (ATTP) 4-32, *Explosive Ordnance Disposal Operations,* was released in December 2011. It offers doctrinal guidance to commanders, staffs, and leaders at all levels who are responsible for EOD operations. It's available on the Army Publishing Directorate's website:

https://armypubs.us.army.mil/doctrine/DR_pubs/dr_aa/pdf/attp4_32.pdf